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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,735	05/18/2007	Jeffrey David Fowler	70333/UST	4467

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SYNGENTA CROP PROTECTION, INC.
PATENT AND TRADEMARK DEPARTMENT
410 SWING ROAD
GREENSBORO, NC 27409

EXAMINER

ARNOLD, ERNST V

ART UNIT	PAPER NUMBER
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1616

NOTIFICATION DATE	DELIVERY MODE
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04/09/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

department-gso.patent@syngenta.com

Office Action Summary	Application No. 10/578,735	Applicant(s) FOWLER ET AL.	
	Examiner ERNST V. ARNOLD	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's election with traverse of quinoline derivative safeners specifically cloquintocet-mexyl in the reply filed on 3/4/10 is acknowledged. The traversal is on the ground(s) that the invention requires other technical features which are not taught in the cited art. This is not found persuasive because the other features are merely adjuvants and excipients which are well known in the agricultural art and, as shown below, the cited reference teaches each and every limitation including oil adjuvants, solvents, pH ranges and water content.

The requirement is still deemed proper and is therefore made FINAL.

Comment: Please insert the continuity data at the top of page 1 of the specification.

Claim Objections

Claim 17 is objected to because of the following informalities: The claim does not end in a period. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-3, 6-13, 15, 16, 18, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Haesslin et al. (WO 2002/067682).

Haesslin et al. disclose on page 23 the instant emulsion concentrate composition and method of applying it to plants. As shown below:

- the instant active and safener are named;
- castor oil polyglycol is an oil of vegetable origin and non-ionic surfactant (The instant oil adjuvant comprises an oil of vegetable origin and castor oil is originally from a vegetable.);
- a surfactant system that forms an oil in water emulsion once water is added;
- Solvesso 200 is a water immiscible solvent;
- Has a pH in the range of 4.5-8 when diluted with water; and
- Contains no water which is less than 2.5% water.

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Emulsifiable concentrate EC 100 of clodinafop-propargyl and cloquintocet-mexyl known under the trade name CELIO®:

Ingredient:	[% by weight]
clodinafop-propargyl (herbicide)	10.0
cloquintocet-mexyl (safener)	2.5
castor oil polyglycol 36-37 (surfactant)	8.32
dodecyl-benzenesulfonic acid calcium salt, linear (surfactant)	6.66
1-methyl-2-pyrrolidone (solvent)	20.0
soybean oil, epoxidised (dispersing agent)	1.0
high-aromatic-content hydrocarbon mixture (solvent) (Solvesso 200)	remainder

Before application, the concentrated formulations set out above are diluted with an amount of 400 litres of water per hectare.

Castor oil and soybean oil are vegetable oils.

It is clear from Haesslin et al. that the concentrate is already commercially available to the public (see above and Page 1:

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2-(4-(3-Chloro-5-fluoro-2-pyridyloxy)-phenoxy-propionic acid propargyl ester has herbicidal activity, especially in crops of cereals, rice and soybeans; it is known by the name clodinafop-propargyl and is described, for example, in US-A-4 713 109.

Clodinafop-propargyl is preferably used together with the safener 2-(5-chloroquinolin-8-yloxy)-1-methylhexyl ester, which is known by the name cloquintocet-mexyl and is described, for example, in US-A-4 881 966. Both compounds are commercially available in the form of an emulsifiable concentrate (EC).

Haesslin et al. disclose adding co-herbicides (bottom page 4 and top of page 5).

The pH is buffered from a pH of 4 to 6 (page 5, middle).

No water is present in the emulsion concentrate above.

Mineral oil is suggested as well as rapeseed oil methyl ester (page 10).

Thickeners are added (page 11) as well as adjuvants (page 12).

The preparation of the emulsion is done by adding an aqueous phase to the organic phase (dilution with water) (pages 12-13). Once diluted a pesticidal composition is obtained. Methods of treating weeds are performed (page 20, Example B1 and claim 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haesslin et al. (WO 2002/067682) in view of Killick et al. (US 7314848) and Douglass et al. (US 20050043182).

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Applicant claims an emulsifiable concentrate and method for the selective control of weeds in crops of useful plants.

Determination of the scope and content of the prior art

(MPEP 2141.01)

The reference of Haesslin et al. (WO 2002/067682) is discussed in detail above and that discussion is hereby incorporated by reference.

Killick et al. teach methyl esters of canola oil and mineral oils for use as adjuvants in agricultural compositions (Abstract; column 5, lines 47-49; and claim 1-6).

Douglass et al. teach herbicides, algicides, fungicides, bactericides, viricides, insecticides, miticides, nematocides molluscicides, acaricides, ectoparasitcides, and mixtures thereof in emulsifiable concentrates (Abstract and claims 1, and 39-46).

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

1. The difference between the instant application and Haesslin et al. is that Haesslin et al. do not expressly teach the adding an oil adjuvant the comprises a methyl ester of a plant oil (methyl ester of canola oil). This deficiency in Haesslin et al. is cured by the teachings of Killick et al.

2. The difference between the instant application and Haesslin et al. is that Haesslin et al. do not expressly teach a single embodiment further comprising at least one member selected from the group consisting of co-herbicides, fungicides, insecticides, acaricides and nematocides. This deficiency in Haesslin et al. is cured by the teachings of Douglass et al.

3. The difference between the instant application and Haesslin et al. is that Haesslin et al. do not expressly teach the cereal plant is wheat or barley. This deficiency in Haesslin et al. is cured by the teachings of common sense.

Finding of prima facie obviousness

Rational and Motivation (MPEP 2142-2143)

1. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add an oil adjuvant the comprises a methyl ester of a plant oil (methyl ester of canola oil), as suggested by Killick et al., to the composition of Haeslin et al. and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because: "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

2. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add at least one member selected from the group consisting of co-herbicides, fungicides, insecticides, acaricides and nematocides, as suggested by Douglass et al., and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Douglass et al. teach that one can not only mix the various biocidal active ingredients but one would desire the broad spectrum of efficacy provided by such a mixture for protection of the crops.

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3. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to perform the method of Haesslin et al. wherein the cereal plant is wheat or barley and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Haesslin et al. teach cereal crops and one of ordinary skill in the art of crop protection understands which crops, such as wheat and barley, are cereal crops.

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Conclusion

No claims are allowed.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Federal Register (2000, volume 65 (No. 76) 11 pages) establishes that EC formulations of clodinafop-propargyl and cloquintocet-mexyl have been known since at least 1992 (See page 5 of 11, 3.).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernst V. Arnold whose telephone number is 571-272-8509. The examiner can normally be reached on M-F (7:15 am-4:45 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Ernst V Arnold/
Primary Examiner, Art Unit 1616

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